Special Issue

Application of Spectroscopy and Sensor Technology in Agricultural Products

Message from the Guest Editors

Among digital technologies, spectroscopic, color, gas, ultrasonic, and other sensors have been showing a significant capability to be utilized as non-invasive and/or rapid sensors for monitoring various quality aspects of agricultural commodities in a robust, reproducible, and accurate manner. The significant advancement of IoT and smart manufacturing facilities provided other phases of applications of non-invasive sensors for online quality evaluation and to be integrated with cloud computing platforms. Over the last decade, there has been intensive research on improving machine learning algorithms which brought tremendous tools for high-dimensional data analysis among which deep learning is an innovative, highly accurate, and deployable model that accelerated the applications of non-invasive sensors for online quality evaluation of agricultural products.

This Special Issue of Agriculture targets a wide spectrum of original research and review studies focusing on the applications of optical, ultrasonic, and other sensors along with machine learning algorithms for the detection of the quality of agricultural products during production, harvesting, handling, and storage stages.

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